

AMENDMENTS TO THE CLAIMS

1. (Withdrawn) A method of generating a plurality of custom browse hierarchies each representative of a unique subset of items, said method comprising:

for each leaf node of a primary hierarchy representative of the items:
establishing a search rule that comprises an aggregation of constraints
specified by the leaf node and its ancestors; and
identifying all of the unique subsets that contain at least one of the items
meeting the aggregation of constraints; and
creating a custom browse hierarchy for each of the unique subsets, said
creating further comprising retaining in the custom browse
hierarchy only those leaf nodes, and their ancestors, from the
primary hierarchy for which the unique subset has been identified
by said identifying.

2. (Withdrawn) The method of Claim 1 wherein each of the unique subsets are identified by a different subset ID, each of the items are stored in a database and each of the items comprising each of the unique subsets is stored in an entry of a subset ID table, the entry further containing the subset ID that identifies the unique subset to which the item belongs, said identifying further comprising:

executing a search of the database to identify each of the items in the database
that meet the constraints; and
for each of the items identified by said executing a search, performing a table join
between the identified item and the subset ID table to return a list of all
subset IDs that are stored in an entry of the subset ID table with the
identified item.

3. (Withdrawn) The method of Claim 2 wherein said retaining further comprises:

for each leaf node of the primary hierarchy:
locating a next unprocessed leaf node of the primary hierarchy;

retrieving the returned list of all subset IDs for the next unprocessed leaf node;
and
cloning the next unprocessed leaf node and its ancestors into the custom browse hierarchy if the subset ID identifying the unique subset is contained in the returned list of all subset IDs for the unprocessed leaf node.

4. (Withdrawn) The method of Claim 2 wherein said executing a search further comprises:

translating the search rule to a database query;
issuing the database query to a database server coupled to the database; and
wherein the database server executes the search and performs the table join in accordance with the database query.

5. (Withdrawn) The method of Claim 4 wherein said translating the search rule to a database query is performed by an application program being executed on an application server.

6. (Withdrawn) The method of Claim 2 wherein the items are products or services, and the items are represented by catalog data stored in the database, the catalog data comprising a unique product identifier, one or more attributes, a unique value for each of the attributes, and associated descriptive information.

7. (Withdrawn) The method of Claim 1 wherein each of the unique subsets of items comprises a custom catalog, and wherein the custom browse hierarchy generated for each of the unique subsets is operable to browse the custom catalog.

8. (Withdrawn) The method of Claim 2 wherein said creating further comprises identifying each custom browse hierarchy with the subset ID used to identify the unique subset for which the custom browse hierarchy identified by the subset ID for display on a terminal having access to the database in response to a request identified by the subset ID.

9. (Withdrawn) The method of Claim 8 wherein said providing further comprises:

formatting the created custom browse hierarchy as one or more web pages; and transmitting the web pages over the Internet for display on the terminal using a web browser.

10. (Withdrawn) The method of Claim 8 further comprising:
formatting one or more copies of the created custom browse hierarchy; and exporting each formatted copy to an entity associated with the subset ID.

11. (Currently amended) An apparatus for generating a plurality of custom browse hierarchies ~~each representative of a unique subset of items from unique subsets, wherein each unique subset contains at least one item from a set of items~~, said method comprising:

for each leaf node of a primary hierarchy, wherein the primary hierarchy is at least coextensive with the plurality of custom browse hierarchies, the primary hierarchy comprises leaf nodes and ancestors of leaf nodes, each node defines a set of items that meet constraints of each node, and the constraints of each node comprise one or more attribute names, one or more attribute values, and one or more associated operators~~representative of the items~~:

means for establishing a search rule that comprises an aggregation of constraints specified by the leaf node and ~~its ancestors~~ all ancestor nodes of the leaf node, wherein the constraints of each node in the aggregation of constraints are logically ANDed together; and

means for identifying all of the unique subsets that contain at least one of the items meeting the aggregation of constraints, wherein each subset is associated with at least one rule, each rule specifies a set of one or more constraints, and

each item that meets the constraints of at least one rule associated with a subset is contained in the subset; and means for creating a custom browse hierarchy for each of the unique subsets, said means for creating further comprising means for retaining in the custom browse hierarchy only those leaf nodes, ~~and their ancestors~~ the ancestor nodes of the leaf nodes, from the primary hierarchy for which ~~the~~ at least one of the unique subset subsets has been identified by said identifying means.

12. (Original) The apparatus of Claim 11 wherein each of the unique subsets are identified by a different subset ID, each of the items are stored in a database and each of the items comprising each of the unique subsets is stored in an entry of a subset ID table, the entry further containing the subset ID that identifies the unique subset to which the item belongs, said means for identifying further comprising:

means for executing a search of the database to identify each of the items in the database that meets the constraints; and
for each of the items identified by said executing a search, means for performing a table join between the identified item and the subset ID table to return a list of all subset IDs that are stored in an entry of the subset ID table with the identified item.

13. (Original) The apparatus of Claim 12 wherein said means for retaining further comprises:

for each leaf node of the primary hierarchy:
means for locating a next unprocessed leaf node of the primary hierarchy;
means for retrieving the returned list of all subset IDs for the next unprocessed leaf node; and
means for cloning the next unprocessed leaf node and its ancestors into the custom browse hierarchy if the subset ID identifying the unique subset is

contained in the returned list of all subset IDs for the unprocessed leaf node.

14. (Original) The apparatus of Claim 12 wherein said means for executing a search further comprises:
means for translating the search rule to a database query;
means for issuing the database query to a database server coupled to the database;
and
wherein the database server executes the search and performs the table join in accordance with the database query.

15. (Currently Amended) The apparatus of Claim 14 wherein said ~~mans~~ means for translating the search rule to a database query is performed by an application program being executed on an application server.

16. (Original) The apparatus of Claim 12 wherein the items are products or services, and the items are represented by catalog data stored in the database, the catalog data comprising a unique product identifier, one or more attributes, a unique value for each of the attributes, and associated descriptive information.

17. (Original) The apparatus of Claim 11 wherein each of the unique subsets of items comprises a custom catalog, and wherein the custom browse hierarchy generated for each of the unique subsets is operable to browse the custom catalog.

18. (Original) The apparatus of Claim 12 wherein said means for creating further comprises means for identifying each custom browse hierarchy with the subset ID used to identify the unique subset for which the custom browse hierarchy is created, said apparatus further comprising:

means for providing the custom browse hierarchy identified by the subset ID for display on a terminal having access to the database in response to a request identified by the subset ID.

19. (Original) The apparatus of Claim 18 wherein said means for providing further comprises:
means for formatting the created custom browse hierarchy as one or more web pages; and
means for transmitting the web pages over the Internet for display on the terminal using a web browser.

20. (Original) The apparatus of Claim 18 further comprising:
means for formatting one or more copies of the created custom browse hierarchy;
and
means for exporting each formatted copy to an entity associated with the subset ID.

21. (Currently amended) A computer program for generating a plurality of custom browse hierarchies ~~each representative of a unique subset of items from unique subsets, wherein each unique subset contains at least one item from a set of items,~~ said computer program product comprising:
a computer-readable storage medium; and
program instructions stored on said storage medium for:
for each leaf node of a primary hierarchy, wherein the primary hierarchy is at least coextensive with the plurality of custom browse hierarchies, the primary hierarchy comprises leaf nodes and ancestors of leaf nodes, each node defines a set of items that meet constraints of each node, and the constraints of each node comprise one or more attribute names, one or more attribute values, and one or more associated operators ~~representative of the items:~~
establishing a search rule that comprises an aggregation of constraints specified by the leaf node and ~~its ancestors~~ all ancestor nodes of the leaf node, wherein the constraints of each node in the aggregation of constraints are logically ANDed together; and
identifying all of the unique subsets that contain at least one of the items meeting the aggregation of constraints, wherein each subset is

associated with at least one rule, each rule specifies a set of one or more constraints, and each item that meets the constraints of at least one rule associated with a subset is contained in the subset;
and

creating a custom browse hierarchy for each of the unique subsets, said creating further comprising retaining in the custom browse hierarchy only those leaf nodes, and ~~their ancestors~~ the ancestor nodes of the leaf nodes, from the primary hierarchy for which ~~the~~ at least one of the unique subset subsets has been identified by said identifying.

22. (Original) The computer program product of Claim 21 wherein each of the unique subsets are identified by a different subset ID, each of the items are stored in a database and each of the items comprising each of the unique subsets is stored in an entry of a subset ID table, the entry further containing the subset ID that identifies the unique subset to which the item belongs, said program instructions further for:

executing a search of the database to identify each of the items in the database that meet the constraints; and

for each of the items identified by said executing a search, performing a table join between the identified item and the subset ID table to return a list of all subset IDs that are stored in an entry of the subset ID table with the identified item.

23. (Original) The computer program product of Claim 22 wherein said program instructions are further for:

for each leaf node of the primary hierarchy:

locating a next unprocessed leaf node of the primary hierarchy;

retrieving the returned list of all subset IDs for the next unprocessed leaf node;

and

cloning the next unprocessed leaf node and its ancestors into the custom browse hierarchy if the subset ID identifying the unique subset is contained in the returned list of all subset IDs for the unprocessed leaf node.

24. (Original) The computer program product of Claim 22 wherein said program instructions are further for:

translating the search rule to a database query;
issuing the database query to a database server coupled to the database; and
wherein the database server executes the search and performs the table join in accordance with the database query.

25. (Original) The computer program product of Claim 24 wherein said program instructions for translating the search rule to a database query comprise an application program being executed on an application server.

26. (Original) The computer program product of Claim 22 wherein the items are products or services, and the items are represented by catalog data stored in the database, the catalog data comprising a unique product identifier, one or more attributes, a unique value for each of the attributes, and associated descriptive information.

27. (Original) The computer program product of Claim 21 wherein each of the unique subsets of items comprises a custom catalog, and wherein the custom browse hierarchy generated for each of the unique subsets is operable to browse the custom catalog.

28. (Original) The computer program product of Claim 22 wherein said program instructions are further for identifying each custom browse hierarchy with the subset ID used to identify the unique subset for which the custom browse hierarchy is created, said program instructions further for:

providing the custom browse hierarchy identified by the subset ID for display on a terminal having access to the database in response to a request identified by the subset ID.

29. (Original) The computer program product of Claim 28 wherein said program instructions are further for:

formatting the created custom browse hierarchy as one or more web pages; and
transmitting the web pages over the Internet for display on the terminal using a
web browser.

30. (Original) The computer program product of Claim 28 further comprising program instructions for:

formatting one or more copies of the created custom browse hierarchy; and
exporting each formatted copy to an entity associated with the subset ID.

31. (Withdrawn) A computer system for generating a plurality of custom browse hierarchies each representative of a unique subset of items, said computer system comprising:

a memory means for storing program instructions for:
for each leaf node of a primary hierarchy representative of the items:
establishing a search rule that comprises an aggregation of constraints
specified by the leaf node and its ancestors; and
identifying all of the unique subsets that contain at least one of the items
meeting the aggregation of constraints; and
creating a custom browse hierarchy for each of the unique subsets, said
creating further comprising retaining in the custom browse
hierarchy only those leaf nodes, and their ancestors, from the
primary hierarchy for which the unique subset has been identified
by said identifying; and
means for processing said program instructions.

32. (Withdrawn) The computer system of Claim 31 wherein each of the unique subsets are identified by a different subset ID, each of the items are stored in a database and each of the items comprising each of the unique subsets is stored in an entry of a subset ID table, the entry further containing the subset ID that identifies the unique subset to which the item belongs, said program instructions further for:

executing a search of the database to identify each of the items in the database that meet the constraints; and

for each of the items identified by said executing a search, performing a table join between the identified item and the subset ID table to return a list of all subset IDs that are stored in an entry of the subset ID table with the identified item.

33. (Withdrawn) The computer system of Claim 32 wherein said program instructions are further for:

for each leaf node of the primary hierarchy:

locating a next unprocessed leaf node of the primary hierarchy;

retrieving the returned list of all subset IDs for the next unprocessed leaf node;

and

cloning the next unprocessed leaf node and its ancestors into the custom browse hierarchy if the subset ID identifying the unique subset is contained in the returned list of all subset IDs for the unprocessed leaf node.

34. (Withdrawn) A custom browse hierarchy representative of a unique subset of items, said custom browse hierarchy generated by:

for each leaf node of a primary hierarchy representative of the items:

establishing a search rule that comprises an aggregation of constraints

specified by the leaf node and its ancestors; and

identifying all of the unique subsets that contain at least one of the items

meeting the aggregation of constraints; and

creating a custom browse hierarchy for the unique subset, said creating

further comprising retaining in the custom browse hierarchy only

those leaf nodes, and their ancestors, from the primary hierarchy
for which the unique subset has been identified by said identifying.

35. (Withdrawn) The custom browse hierarchy of Claim 34 wherein the unique subset is identified by a unique subset ID, each of the items is stored in a database and each of the items comprising the unique subset is stored in an entry of a subset ID table, the entry further containing the subset ID that identifies the unique subset, said identifying further comprising:

executing a search of the database to identify each of the items in the database
that meet the constraints; and

for each of the items identified by said executing a search, performing a table join
between the identified item and the subset ID table to return a list of all
subset IDs that are stored in an entry of the subset ID table with the
identified item.

36. (Withdrawn) The custom browse hierarchy of Claim 35 wherein said retaining further comprises:

for each leaf node of the primary hierarchy:

locating a next unprocessed leaf node of the primary hierarchy;

retrieving the returned list of all subset IDs for the next unprocessed leaf node;

and

cloning the next unprocessed leaf node and its ancestors into the custom browse
hierarchy if the subset ID identifying the unique subset is contained in the
returned list of all subset IDs for the unprocessed leaf node.